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| 09/617,920      | 07/17/2000  | Masayuki Takahira    | Q58735              | 8339             |

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SUGHRUE, MION, ZINN, MACPEAK & SEAS  
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Washington, DC 20037

EXAMINER

WU, JINGGE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2623

DATE MAILED: 01/14/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/617,920

Applicant(s)

TAKAHIRA, MASAYUKI

Examiner

Jingge Wu

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 27-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-15 and 34 is/are allowed.
- 6) ☐ Claim(s) 16-18, 27-33, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) 37-39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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*Response to Amendment*

Applicants' response to the last Office Action, filed November 3, 2003 has been entered and made of record.

Applicants' amendment has required new grounds of rejection. New grounds rejection are therefore presented in the Office Action.

**Remarks**

Applicant's arguments with respect to claims 16-18 have been fully considered, but they are not persuasive.

a. Applicant argues that in claim 16, Ito does not appear to disclose correcting an edge shape before the color reproducing space is compressed or extended.

However, in response to applicant's argument, Examiner would like to point out that claim language is given its broadest reasonable interpretation. In the instant case, Ito clearly show that a edge shape of monitor gamut is corrected in the  $L^*a^*b^*$  space by the gamut matching (fig. 3-7, col. 5-col. 6), and then corrected color transformed into the reproducing color space (fig. 3-7, col. 5-col. 7 line 8, note that gamut mapping is used to correct the edge shape of monitor gamut and  $L^*a^*b^*$  to YMC transformation is the "compressed or extended", e.g. interpolation). Thus, Ito is properly used for the 102 rejection.

b. Applicant argues that in claim 18, Ito does not teach the adjusting a parameter of the reproducing space followed by compression or extention.

Same argument is addressed with regard to section a.

c. Applicant argues that in claim 17, Hosino does not appear to disclose correcting an edge shape before the color reproducing space is compressed or extended.

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However, in response to applicant's argument, Examiner would like to point out that claim language is given its broadest reasonable interpretation. In the instant case, Hosino clearly show that a edge shape of monitor gamut is corrected in the L\*u\*v\* space by the gamut matching (fig. 3a-3c, 11-19, col. 4 line 11-col. 5 line 60, col. 6 line 54-col. 8, col. 12 line 34-col. 13), and then corrected color transformed into the reproducing color space (col. 12 line 34-col. 13, note that gamut matching is used to correct the edge shape of monitor gamut and L\*u\*v\* to YMC transformation is the "compressed or extended", e.g. interpolation). In addition, Hosino also teaches that Thus, Hosino is also properly used for the 102 rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16, 18, 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6301383 to Ito et al. (a reference of record).

As to claim 16, Ito discloses a method of compressing/extending a color reproducing space, comprising:

before the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (monitor gamut) is transformed into the color reproducing space of a second image input/output device (printer gamut) having a different shape or size of the color reproducing space (fig. 13-14); and

correcting an edge shape a color gamut of said second image input/output device in according with an edge shape of a color gamut of said first image input/output device (fig. 14-16, col. 1-col. 2, fig. 4, 6, and 10 col. 6 –col. 8).

As to claim 18, Ito discloses a method of compressing/extending a color reproducing space, comprising:

when the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (monitor gamut) is transformed into the color reproducing space of a second image input/output device (printer gamut) having a different shape or size of the color reproducing space (fig. 13-14);

providing an adjusting parameter of at least one of a hue, a chroma range and a lightness region for the purpose of adjusting the color reproducing space (col. 6 lines 1-65); and

adjusting at least one of corresponding a hue, the chroma range and the lightness region of the color reproducing space to transform into by compression or extension (fig. 6-7col. 5-col. 8).

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As to claims 35-36, Ito further discloses the edge shape of a color gamut of the second image input/output device is corrected to correct offset of primary colors in relation to the primary colors of the first image input/output device (fig. 7, col. 2 line 44-col. 3 line 36 and col. 5 line 51-col. 6 line 65).

Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Us 5317426 to Hoshino (a reference of record).

As to claim 17, Hoshino discloses a method of compressing/extending a color reproducing space comprising:

before the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (monitor gamut) is transformed into the color reproducing space of a second image input/output device (printer gamut) having a different shape or size of the color reproducing space (fig. 14); and

correcting a non-linear portion of an edge shape of a color gamut of said second image input/output device in according with an edge shape of a color gamut of said first image input/output device (fig. 13-19, col. 14, line 35-col. 15 line 61 note that  $L^* = b_{xr} + c$  is linear function).

As to claim 28, Hoshino further discloses a central color reproducing space where the first image input/output device and the second input/output device overlap and a peripheral color reproducing space where the first image input/output device and the second input/output device do not overlap (fig. 15 and 27) are both compressed or extended (fig. 15 and 27, col. 14 line 35+, and col. 2, note that equation (1) describes the compression following the linear direction  $L^*$ ).

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As to claim 31, Hoshino further discloses each color representation of a color reproducing space is compressed or extended (fig. 15 and 27, col. 14 line 35+, and col. 2).

As to claim 33, Hoshino further discloses the correction is performed on the highest chroma pint so that the highest chroma point is clearly defined (fig. 14, col. 14, 5+).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27, 29-30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable Ito in view of Hoshino.

As to claims 27 and 29, Ito does not explicitly mention compressing or expanding the central portion of the reproducing color space.

Hoshino, in an analogous environment, discloses the feature (see claim 28)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Hoshino in the method of Ito in order to decrease the artifacts such as changed lightness (Hoshino col. 2).

As to claims 30 and 32, the discussion is addressed with regard to claim 31.

***Allowable Subject Matter***

Claims 37-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 1 is allowed. Claims 2-15 depend from claim 1 are, therefore, allowed.

Claim 34 are allowed.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



***Contact Information***

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

